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PCT/DE 03/03677 (7 claims) [Patentansprüche2.pdf]

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1. Hydraulic steering device for articulated vehicles, in particular construction machines, in which these possess a hydraulic swivelling motor (2) for producing the steering movement, which is connected with a pump (3) with a variable flow rate and reversal of the direction of delivery,

characterised in that the swivelling motor is a swivelling vane motor (2) which is designed as the articulation joint (21) of an articulated vehicle (22) or is arranged on the turning axle of the articulation joint (21) of the vehicle (22).

- Steering device in accordance with claim 1, **characterised in that**the variable flow pump (3) with reversal of its delivery direction is designed as a constant displacement pump, which is driven by a controlled variable speed electric motor.
- 3 Steering device in accordance with claim 1, **characterised in that**the variable flow pump (3) with reversal of its delivery direction is designed as a variable displacement volume pump (with reversal of its delivery direction, in particular as a variable displacement axial piston pump with a swashplate.
- 4 Steering device in accordance with claim 1, 2 or 3, **characterised in that** at least one swivelling motor (2) is arranged above and/or beneath the articulation joint (21).
- Steering device in accordance with claim 1 or one of the preceding claims,

  characterised in that

  for controlling the pump an electronic controller (38), in particular a micro controller is
  envisaged.
- Steering device in accordance with one of the preceding claims

  characterised in that

  sensors (29) for recording the steering angle and/or further system state parameters of state are envisaged.
- 7 Steering device in accordance with one of the preceding claims characterised in that

for setting the steering angle an electronic control element, in particular a joystick, possibly with a force-feedback function is envisaged.